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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,140	02/05/2001	Tetsujiro Kondo	450101-02537	1959

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FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,140

Applicant(s)

KONDO ET AL.

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claims 1-13 are objected to because they are replete with unintelligible clauses, often resulting from missing articles and prepositions. Examples of unclear phrasing include “the number of bits of pixel value of pixels of block for classification” (claim 3), “extraction means for extracting feature quantity every predetermined unit of picture data having distortion” (claim 6), and “classification means for carrying out classification every predetermined unit of the picture data in accordance with the feature quantity extracted” (claim 6). Appropriate correction is required.

3. Claim 9 is objected to because “highly” is misspelled as “highy” on line 3. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 4, 5, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Driscoll (U.S. Patent No. 6,593,969).

Regarding claims 1 and 4, Driscoll discloses panoramic camera and its associated processing device. The system captures a distorted annular image, as shown in Figure 3A (a “distorted picture image”), into the corrected image shown in Figure 3B.

The system is comprised of the components shown in Figure 13A, including panoramic camera system 1205 (“image pick-up means”), a network (“communication means”), and computers (“a picture image display unit”) connected to the network (column 10, line 64, through column 11, line 3). Digitized annular images captured by panoramic camera system 1205 are stored in annular video storage system 1230 (“memory means”) (column 10, lines 42-43).

A computer user makes a request using the GUI shown in Figure 13B, wherein a desired viewing area is requested by moving locator window 1315 (column 11, lines 12-15). The requested viewing area is transmitted by the network to user input processing routines 1250 and 1253 (“selector means”) (column 11, lines 19-20). User input processing routines 1250 and 1253

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instruct annular to video conversion units 1240 and 1243 ("picture image conversion means") to produce and output corrected images of the selected area to the computer (column 11, lines 19-24).

Claim 5 may be treated like claim 1. Additionally, Driscoll teaches that image processing is performed on computer system 1200 (column 10, line 34). It is inherent that computers perform processing using instructions stored in some form.

Claims 12 and 13 may be treated like claim 1. Additionally, it is inherent that a computer connected to a network has some sort of hardware interface to that network ("second communication means").

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driscoll in view of Adams (U.S. Patent No. 5,652,621).

Claim 2 may be treated like claim 1. However, Driscoll is silent with regard to selecting distorted portions of the image for correction through classification adaptive processing.

Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification

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(column 4, lines 37-44). An advantage to performing processing in this manner is that unnecessary processing is avoided. For this reason, it would have been obvious at the time of invention to have Driscoll's system classify pixels to determine whether distortion-corrective processing is necessary prior to performing such processing.

Regarding claims 6, 10, and 11, Driscoll discloses panoramic camera and its associated processing device. The system captures a distorted annular image, as shown in Figure 3A ("picture data having distortion"), into the corrected image shown in Figure 3B.

The system is comprised of the components shown in Figure 13A, including a network and computers connected to the network (column 10, line 64, through column 11, line 3). Digitized annular images captured by panoramic camera system 1205 are stored in annular video storage system 1230 (column 10, lines 42-43).

A computer user makes a request using the GUI shown in Figure 13B, wherein a desired viewing area is requested by moving locator window 1315 (column 11, lines 12-15). The requested viewing area ("predetermined unit[s] of picture data" of a "feature") is transmitted by the network to user input processing routines 1250 and 1253 ("extraction means") (column 11, lines 19-20). User input processing routines 1250 and 1253 instruct annular to video conversion units 1240 and 1243 ("picture image conversion means") to produce and output corrected images of the selected area to the computer (column 11, lines 19-24).

Driscoll is silent with regard to selecting distorted portions of the image for correction through classification of pixels.

Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification (column 4, lines 37-44). An advantage to performing processing in this manner is that

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unnecessary processing is avoided. For this reason, it would have been obvious at the time of invention to have Driscoll's system classify pixels to determine whether distortion-corrective processing is necessary prior to performing such processing.

Regarding claim 7, Driscoll's system includes panoramic camera system 1205 ("image pick-up means").

Regarding claim 8, Adams discloses a digital camera system that classifies pixels based on their properties and selects a type of processing to be performed on each pixel based on that classification (column 4, lines 37-44).

8. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driscoll in view of Adams and further in view of Kondo (U.S. Patent No. 5,835,138).

Claims 3 and 9 may be treated like claims 2 and 6, respectively. However, Adams is silent with regard to performing adaptive dynamic range coding.

Kondo discloses an image signal processing apparatus that performs ADRC encoding on captured image data using ADRC encoder 8 (column 5, lines 28-30). An advantage to performing ADRC encoding on pixels prior to classifying them for processing is that the number of bits necessary to represent the image data is reduced, thus reducing the amount of processing necessary to manipulate the data. For this reason, it would have been obvious at the time of invention to have Adams's system perform ADRC coding on the image data prior to performing any processing.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (703) 305-1819. The examiner can normally be reached Monday through Friday from 8:30 A.M. to 6:00 P.M. eastern daylight time, alternating Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTW

JTW

May 28, 2004


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600